**3.2 Heating Systems Technologies Inquiry Sheet** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. People have a comfort level at certain temperatures. Approximately what temperature does the average person feel comfortable at? (you can check thermometers or the thermostat in the room….or look it up online – you choose!)
2. How do bimetallic strips work?
3. When a bimetallic strip bends (curves) is the faster expanding metal on the inside of the curve or the outside of the curve? Draw a diagram and label.
4. How do thermostats work? And…how are bimetallic strips used to turn a furnace on and off?
5. How does a fire alarm work using a bimetallic strip?
6. A thermocouple is made of two wires of different metals that are twisted together. When heat is applied to one end, an electric current is produced. The amount of current depends on the temperature – so if you can measure the amount of current – then you can figure out the temperature! What are two advantages to using thermocouples to measure temperature?
7. If an object is warmer than absolute zero then it gives off infrared radiation (IR). What is an infrared thermography and how can it be used to find out where a home is losing heat?
8. What is a heating system?
9. There are two basic types of heating systems – space heaters and central heaters
10. What is a space heater?
11. What are some examples of space heaters?
12. What is central heating?
13. What are examples of central heating systems?
14. When would a space heater be used?
15. When would central heating be used?
16. There are two types of Central Heating systems (Water and Forced Air)
17. Examples of water heaters include, in-floor heating, radiators and underwater baseboards. Search the internet or look on youtube to learn more about one of these types of water heaters

Write websites visited and notes about what you learned (for our discussion):

1. Research on the internet or on youtube about how a forced air furnace works.

Write the websites visited and notes about what you learned (for our discussion)